

ABSTRACT

A switching power supply comprises one or more switching sections which repeat ON/OFF operation, a transformer having a primary winding and a secondary winding, a synchronous rectifier section for rectifying a voltage induced in the secondary winding when an input voltage is applied to the primary winding of the transformer by the switching section, a smoothing section for smoothing the voltage rectified by the synchronous rectifier section to obtain an output voltage, a PWM control circuit which generates a PWM signal for adjusting the output voltage to determine an ON/OFF ratio of the switching section, and a drive transformer for ON-OFF driving the synchronous rectifier section according to the PWM signal, and is configured so as to use the energy stored in the drive transformer or the transformer for the ON/OFF operation of the synchronous rectifier section.